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ABSTRACT

An Australian Special Collections Librarian discusses the operations of audiovisual services at academic institutions throughout the United States as he observed them in the course of a 13-week Fulbright study tour. His impressions are based on visits to 22 universities, eight colleges, ten professional associations, and government agencies in 23 states, and attendance at two conferences. In observing the services and discussing their planning, organization, and administration with senior staff, he paid particular attention to the development of programs for the effective exploitation of audiovisual resources by academic staff and their students. This report focuses on staffing, organizational structure, resources, facilities and services, microform, map collections, and attitudes. Australian and American programs and practices are contrasted throughout. (RAA)

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AUDIOVISUAL SERVICES

IN THE UNITED STATES

H.F. CORNELIUS

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PURPOSE OF VISIT

To visit tertiary institutions which operate audiovisual services in which the library plays a major role. To observe these services in operation and to discuss with senior staff their planning, organisation and administration with particular attention to the development of programs for effective exploitation of audiovisual resources by academic staff and their students.

Attention would also be given to co-ordination of library services and campus audiovisual production services; to commercial and other sources of tertiary-level audiovisual materials, library-based television systems; to the design, layout and equipment of audio-visual centres and problems of staffing; and, as time permits, to the organisation of map collections in tertiary institutions.

INTRODUCTION

This report presents a personal viewpoint and conclusions drawn from a 13-week Fulbright study tour of the United States. During this tour I attended two conferences and investigated the audiovisual resources, services and facilities of 22 universities, 8 colleges and 10 professional associations and government agencies in 23 states, holding extensive and detailed discussions with lecturers, educational technologists, librarians, producers and technicians involved in campus audiovisual services.

Although in the course of this study tour I accumulated 300 closely written quarto pages of notes taken "on the run", and a 5-foot stack of reports, handouts and catalogues, it would be presumptuous to claim that this report is more than a subjective statement of impressions on various topics. Where comparisons are made with Australian counterparts, it must be remembered that these are *not* based on a recent three-months' tour of Australian Audiovisual Services, concerning which my knowledge is less up-to-date than on the United States, although naturally I have, over a period of some years' acquaintance with a wide range of practitioners, formed some very definite opinions of the Australian AV scene.

Clearly, a considerable quantity of valuable and specific information has been omitted from this report; and in addition, lacking opportunities for checking some statements, there may be errors, for which I apologise. If the name of an organisation does not appear in the body of the report, this by no means indicates that the visit there was unrewarding.

It would be naive to assume that any one of the institutions visited in the U.S., or *any* tertiary institution in the U.S., for that matter, is operating an AV service which can or should be taken as a general model. An exceptionally well-informed American colleague stated that no more than 10 per cent of students have access to reasonably good AV services. Standards and scope of services provided vary greatly

from institution to institution and from library to library - from the very good to the poverty-stricken, to the greatly fragmented and therefore expensive, to the virtually non-existent.

At the time of my visit the cold breath of California's "Proposition 13" had been registered as far afield as the east coast. Generally speaking, there appeared to be considerable interest in accelerating co-operation between academic libraries. There was less support by library staff and teaching faculty for the "blunderbuss" approach to the building of prestige research collections of printed material, large parts of which may be used "this year, next year, sometime..."; or to the acquisition by individual libraries of large self-contained collections of enormously expensive and little-used serials. However, financial restrictions on academic libraries still appeared in many respects to be less severe than those affecting Australian counterparts. It was obvious that failure by many academic libraries to provide effective audiovisual services had little to do with lack of finance. This, certainly, was a familiar state of affairs.

In general, the pattern of AV development within individual institutions is as inconsistent and incomplete in Australia as in the U.S. Overall, my own university is well up with the leaders in the Australian audiovisual scene, and compares well with the better American performers, but it still has a great deal to accomplish before academic staff and students enjoy AV resources and services comparable with those provided in printed materials, and learn to use them to best advantage.

One benefit obtained from the tour was confirmation that Macquarie's AV services have proceeded on essentially sound and reasonable, if at time timid, lines of development.

It was evident that, despite the die-hard attitude of many librarians and academics, AV practitioners in the United States are confident that they are not promoting a temporary fad, but are conscious of being under continued pressure to provide more and better AV services.

I hope that the opportunity will be given to me to demonstrate that one Australian university, at least, can achieve most, if not all, of the full potential an AV service holds for an Australian tertiary institution.

STAFFING

The basic component of any audiovisual service is staff. In this respect, library and other campus audiovisual services in the U.S. differ in some ways from those in Australia. The first of these is the widespread "work-study" arrangement, whereby students are financed through their courses by federal funds earned through work, e.g. in the campus library. Many students prefer this to alternatives such as working to pay back a lump sum loan after graduation, although it was told that, in these times of job shortages, a few students now actually prefer the latter, which allows more free time for study and

assignment preparation. The net result of "work-study" is that reasonably plentiful (though often unqualified) labour is available for little more than the cost of basic training and the maintenance of staffing rosters. This means that professional staff are freed from repetitive routine work for more productive contact with teaching faculty and students. For example, at Utah State (enrolment 920[illegible], university roughly the size of Macquarie, and apparently no wealthier, the basic AV staff (4 of whom work 40 hours per week) of the Merrill Library AV section is composed of 1 professional, 3 clerks and 1 communication technician. This is supplemented by some 18 part-time students whose work span varies from 6-7 hours per week in some cases, to 15-20 hours per week for others. The graphics department (also part of the Merrill Library and Learning Resources Program) employs three professional full-time staff plus a secretary, as well as 14 part-time graduate students with special interests and capabilities in art and media. The Library AV section is open 17 hours a week fewer than the Library's AV section at Macquarie, and, although it handles equipment services to classrooms and projection services, overall is involved in a much less extensive range of resources and services than the Macquarie AV staff, which handles maps, microforms and a substantial open access AV collection (5 full-time plus about 59 hours of part-time staff). It is, of course, extremely difficult to make just comparisons on AV staffing, since responsibilities and organisational structures are considerably more varied than is the case with print collections.

At Syracuse University (10 000 undergraduates, 5 000 postgraduate students and about 9 000 "miscellaneous" mature-age and other students who are not necessarily enrolled for degree study), the main library has a total of 58 librarians, 110 support staff and the equivalent of 85 full-time staff in terms of student help.

At the University of Tennessee Undergraduate Library, the Supervisor of the Non-Print Department's (essentially) closed reserve service, has four full-time assistants plus 700 hours of student help per 10 weeks - staffing which he contends is grossly inadequate to handle the year's 110 000 units of AV service (group plus individual usage, but excluding reference advisory service). At the Educational Resources Department of Bracken Library, Ball State University, there are the equivalent of 5½ professional staff, 18 support staff (managerial, technical and clerical) and 125-130 students each working 15 hours per week.

In general, part-time "work-study" student help is a much more significant factor than in Australian academic libraries, and there is also a comparatively large pool of graduate students on which to draw. In the U.S. students are consequently employed on a wide variety of tasks - projection services, equipment maintenance and delivery, AV production, booking services, staffing of "AV Reserve" and "learning laboratory" services, including even computer-assisted instruction facilities. For example, at Northern Virginia Community College, student proctors are responsible for the TICCIT (Time-shared Interactive Computer Controlled Information Television) c.a.i. (computer-assisted instruction) labs. It has been found that they develop considerable competence in dealing with basic problems which recur with successive intakes of students. Full academic staffing presumably

would be regarded as "overkill". In Australian libraries use of student labour has tended to be confined more to shelving of material, and perhaps routine processing and binding tasks. My impression is that overall, as a result of the employment of students, staffing of AV services in the United States is substantially more adequate and effective than in Australian AV departments. There is a clearer division between professional and non-professional duties, and opportunities for more efficient problem-solving and developmental work on the part of professionals.

The negative aspects are that there may be a higher staff turnover than with full-time staff; that the task of staff training may be increased, and that student labour may, at times, prove unreliable. (The failure rate of student projectionists to turn up for screenings at Syracuse is put at 10-15 per 1 000 screenings. In such emergencies, of course, permanent staff fill in.)

Taken all in all, the work-study system has much to recommend it. A subsidiary benefit to students enrolled in, for example, media or library science is the opportunity to learn more of the behind-scenes operation services. At Kent State University, I was told that funds had also been made available to the university (including the library) to employ labour on special short-term projects which would, in addition, have the effect of providing an element of professional traning or retraining.

A second significant factor affecting work performance among not only AV but all academic library staff, is a greater recognition of professional status. This was the subject of a paper by James Schmidt (State University of New York at Albany) given at the Conference of the Association of College and Research Libraries (Boston, November 1978). Faculty status was first given to librarians at Columbia University in 1911. In 1976, 75 per cent of institutions questioned said that all their professional library staff had faculty status. One effect of this, according to a Kent State colleague, is encouragement of research and publication. At Kent State, the library administration have had faculty rank since 1968, but have been on a 12-month contract. In future, I understand, library administration other than the Director and the two assistant Directors will, as with teaching faculty, be on 9-month contracts, which they mostly favour, as giving opportunities for publication, teaching in their own or other institutions, and study travel.

I formed the impression that professional librarians in the U.S. still accept far more responsibility for selection of book stock than their Australian counterparts. In the AV field, because of the higher unit costs applying to some types of material, participation often takes the form of drawing the attention of teaching staff to items on publishers' catalogues and bibliographies, arranging preview sessions, etc., rather than outright selection for purchase. Initiative, though, still remains very largely in the hands of the AV specialists, who are considerably more knowledgeable about AV media than either teaching staff or print-oriented library colleagues.

The third main area of difference in staffing was the greater prevalence of higher degree qualifications in media studies, or dual qualifications in librarianship and educational technology, than is to

be found in Australia. Usually this tended to be a characteristic of younger staff. Masters or even doctoral degrees were not uncommon among both heads of departments and support staff engaged in AV services. At Ball State University, the library's Division of Educational Resources is headed by a person who holds, among other qualifications, a Doctorate in Education and a Master's Degree in Educational Media. He is backed by another with a doctorate and three with M.Lib. Science degrees, one of whom is engaged in doctorate study.

In some instances, the current shortage of employment may have had some bearing on the lavish supply of higher degree holders (this, and the tremendous emphasis on acquiring "credits" and qualifications that is evident in the U.S.). There even appears to be some reluctance to undertake workshops or short courses unless these, too, lead to further "credits". Some staff appeared to be over-qualified, or to possess qualifications irrelevant to the nature of their work. Courses in educational technology are certainly far more plentiful and accessible in the U.S. than in Australia, but it is by no means certain that the courses available adequately meet the needs of persons concerned with the development and exploitation of resources collections. On the other hand, there appeared to be warmth of feeling among some production staff (including heads of production departments) on what they saw as the deficiencies of educational technology courses as a qualification for producers or production managers.

There are probably far fewer career opportunities for instructional developers (educational technology backgrounds) than for producers or resources librarians. Often the "librarianship" training of "media" staff tended to be limited to short courses as school media specialists, which some would regard as a very minimal background for the direction of a broadly based, integrated-with-print collection in a tertiary institution, unless the director enjoys the immediate support of very experienced librarians on his staff.

The question of "librarian" *versus* "educational technologist" is a long-standing one, and I am not sure that it means a great deal. In the States, where it engenders more feeling than in Australia, I nevertheless found many instances of the healthy situation of educational technology people working happily within a library context, and likewise library-trained personnel working harmoniously and fruitfully with educational technologists, etc.

There appeared, however, to be a general tendency to castigate the American Library Association for its reactionary attitude to audio-visual services. One colleague remarked that the library profession had missed great opportunities with film collections at the turn of the century, and more recently had repeated the blunder with television services. A.L.A. accredited schools of librarianship were generally felt to be providing very inadequate education in AV librarianship. At the University of Tennessee, the Undergraduate Librarian (herself with a strong AV background, and a continuing and very practical interest in the development of better AV bibliographies, "state-of-the-art" publications and AV services generally) feels that "print-ism" will persist, and regards the allocation of responsibility for AV services to specialist AV librarians as a necessary and sensible policy. At Columbia Teachers College, New York, a colleague even

referred to the effect of powerful vested interests in the (print) publishing industry as an obstacle in the path of more intelligent AV development. At the Boston ACRL (Association of College and Research Libraries) conference audiovisual matters were, apart from the novelty of video discs and similar developments, very largely ignored. There certainly appears to be still prevalent among many American librarians a mixture of ignorance and snobbery which considers AV services more appropriate to the community college rather than the university level. A distinguished speaker at the ACRL conference identified four great inventions in non-personal communication - writing, the alphabet, movable type and the computer. We then spent a great deal of time marvelling at the billions expended annually on the telephone system, and the fact that five times (?) as many people get information from television as do from print. Yet no specific acknowledgement was made of the tremendous importance of the recording and transmission of sound and picture in comparison with the "four great inventions".

Because I have frequently been harried by an Australian colleague with the question "What is a librarian?", I enjoyed asking my hosts, "What is the most professional aspect of your work?". The almost invariable answers were "I communicate; I solve problems; I interact with academic staff in the provision of resources and services". Note that they did not say "interact with students". I think this is significant.

ORGANISATIONAL STRUCTURE

The way in which audiovisual services of various kinds were organised, and responsibilities distributed, was of great interest to me, as, I imagine, it must be to all engaged in working with audiovisual media in tertiary institutions. Almost every conceivable type of organisational structure capable of providing learning resources development and support services is to be found in American educational institutions. The least effective and most expensive audiovisual services in terms of returns for money, exist where resources and facilities have been built up in scattered campus departments in response to departmental "politic-ing". Standards of service in these departments vary widely according to the fund-raising capacities and enthusiasm of individual department heads.

A significant number of universities (and many more community colleges) are operating comprehensive audiovisual services (including instructional development, graphics, photographic, audio and TV production) under the control of the library, or in other instances, with some or all of these activities housed within the library and operating independently but in close co-operation with it. If one message emerged during the study tour, however, it was that no one formula can readily be applied to institutions differing widely in size, history, finance, physical layout and the personalities of staff involved.

As in many Australian colleges of advanced education, a high degree of involvement in all aspect of AV is quite common also in the community

colleges of the U.S. (In parenthesis I wish to state my admiration of much that I saw in community colleges. The one-third vocational studies/one-third adult education/one-third preparation for university studies mix, combined with genuine staff concern for disadvantaged students and backed by centralised and co-ordinated print and non-print services, is in many cases admirably meeting real community needs.)

At Georgetown University (Washington, D.C.), Ball State University (Indiana) and Utah State University, to take only three examples, there is a high degree of involvement by the library in all aspects of AV services - not merely in the collection building and retrieval traditionally associated with libraries.

Georgetown University has an enrolment of 10 000, of whom about 6 500 are on the campus served by the main audiovisual unit. The head of Audiovisual Services has a Master's degree in Educational Media Supervision and Curriculum Design, is not a librarian, but likes being responsible to the Librarian. Not surprisingly, I found the Librarian to be enthusiastic about AV media - a survey in 1965 showed little interest in AV, but he nevertheless introduced these services in the Library. He believes the Library should advertise its AV and also stimulate the faculty to use it. The AV section is open 87 hours a week and last year had 249 565 patrons (2 years previously, the figure was a little over 90 000). It handles campus services, public services, materials production, repair and maintenance, film rental, copying and microform. Production facilities and activities are modest, in comparison with those at some larger institutions, and space is for the moment, cramped, but there are possibilities for substantial future expansion. The head of the section (unlike many colleagues) feels that a comprehensive AV unit attached to a library is less likely to experience budget cuts in stringent times than an independent unit. He is planning for 14 full-time staff and 45 part-time student assistants.

Ball State University has 17 000 students. The Educational Resources Department of Bracken Library has 30 000 square feet of space in the three-year old building; has an extensive software collection, including school-level material for student teachers, equipment and personnel to service campus classroom activities; and good video colour cameras, telecine chain, graphics generator, etc. There are facilities for self-help production by staff and students. The Head of Educational Resources is directly responsible to the Director of the Library, and feels that overall the unit fares better in this set-up than it would as an independent unit.* Ball State University

* It appears that library-based comprehensive AV services can be almost too successful, or may be regarded as such by some academic staff. I was told by the Systems & Procedures Exchange Center Co-ordinator of the Association of Research Libraries, that before the AV program at University of Pittsburgh became independent of the Library in 1975, it has grown to a staff of 28 and an 11.4 per cent share of the Library budget, expended on services including classroom support, instructional development planning and the production of specialised

employs a Director for Instructional Development whom they wished to be independent of other departments. This person, however, works closely with and is to have an office located physically adjacent to, Educational Resources. Likewise the independent Evaluation/Testing Service will move adjacent to Educational Resources. The teachers' college on campus has limited slide and video production facilities, and The Center for Radio and Television operates an FM radio station and also provides some service to the University in video production, etc. However, Educational Resources is better equipped for this, and "looks like staying that way".

Utah State University has a most interesting media services system centred on the Merrill Library and Learning Resources Program. This is largely the outcome of a report of February 17, 1970 by Dr Don C. Smellie in consultation with fifteen other academics, entitled "Plan to co-ordinate learning resources at Utah State University with emphasis on improvement of the learning-teaching process". At the time of the report complicated procedures for obtaining audiovisual materials and associated equipment services were such that most professors concluded that it was much easier to lecture and avoid the use of technology, at least as long as they stayed at Utah State University. The report identified four functions:

1. Design - plan, organise, analyse and evaluate the learning process.

2. Get - acquire, procure, purchase that which can be purchased commercially.

3. Produce - create, make, build, tape, photograph, draw that which cannot be purchased commercially.

4. Distribute - dispense electronically or physically to any location the learning materials designed, purchased or produced.

As a result it was proposed that the Merrill Library become the Merrill Learning Resource Center, and the Merrill Library and Learning Resources Program now operates in four divisions:

1. Library services)
2. Collection development) include traditional library functions
3. Media Production
4. Instructional Development

each with an Associate Director in charge, reporting to the Director.

materials. Reasons for divorce from the Library were competition for funds and the fact that faculty may see media programs as taking money directly from the book vote. According to local circumstances, then, it is possible that sharing a budget and administration can actually increase rather than decrease competition. There may be advantages in the university or college providing clearly differentiated budgeting for AV, while retaining the administrative and supervisory links of the library director and the advantages of housing and inter-relationship with the book collections.

The Merrill system includes among its responsibilities Instructional Television (ITV) - to meet on-campus instructional needs - this is fairly lightly funded by the University; and Broadcast Television (ETV), a state-wide service fairly heavily funded by the state legislature. I have already, in touching on staffing, referred to the projection and graphics services of Merrill, which also provides photographic and audio services, a film collection and standard in-library facilities for the use of audiovisuals by students and staff. What also makes the Merrill system of especial interest is the close integration within it of the Instructional Development Division. This works with staff in various ways:

1. General awareness - fostering better awareness of teaching methods in specific fields among individual academics and departments. This includes holding seminars.

2. Creative idea level - "mini grants" up to a maximum of $500 are provided to enable academic staff to implement new educational ideas.

3. Faculty development level - i.e. a teacher has a specific problem in his teaching and seeks a solution.

4. Departmental level. When an individual member absents himself to work on a specific instructional problem or production, the rest of the department have to take up the slack, and this can be a possible cause of resentment. Associated faculty, as a team, are asked what <u>their</u> major problem is, and a healthier result ensues.

5. All individual teachers are themselves gradually being trained as "mini-developers", learning to state objectives, etc., right through the whole educational process, so that Instructional Development can become merely supportive to academic initiative.

Instructional Development has three professional staff, specialists respectively in (a) curriculum, (b) educational evaluation, (c) instructional design and product design, plus four part-time graduate students and a secretary.

My visit to Utah State was an extremely rewarding one. Other institutions (Oral Roberts University, Syracuse University, and the University of Missouri School of Medicine, for instance) had a range of equipment and facilities impressive in size and sophistication, but I felt that at Utah State a capable and enthusiastic staff had proved the validity of their ideas while operating services which were not only efficient and effective, but working within modest limits of expenditure. My chief criticism of Utah State would be the obvious inadequacy of budgeting for equipment purchase, replacement and maintenance, and disappointment at the limited quantity of non-film commercial material available for free browsing and use by students and staff.

Almost at the other end of the scale of library involvement is the much larger and wealthier institution, the University of California, Berkeley. As at Arizona State University, the University of

Colorado at Boulder and the United States Air Force Academy, library involvement is minimal. Although the UC (Berkeley) Campus Media Co-ordinating Group on May 17, 1978, submitted to its Council on Educational Development, a "Campus-wide assessment of faculty needs and usage of non-print media", audiovisual services for this campus of 28 000 students remain somewhat piecemeal, and the campus library service has done relatively little to introduce AV media to students, and even less for staff. Library involvement is a little more advanced at UCLA, but at Berkeley library audiovisual services are still very much in their infancy. (A librarian with a Master of Library Science degree is now taking responsibility for development of limited services within Berkeley's Moffitt Undergraduate Library, and these should be operative in 1979.) The remaining AV services on campus are divided among a number of units such as: Educational Media Laboratories (School of Education); Educational Television Office; Educational Services (Health and Medical Sciences); Language Laboratory; School of Social Welfare Video Studio and Laboratory; School of Public Health Audio Visual Media; Extension Media Center. The latter is, like many similar services on U.S. campuses, a semi-commercial largely self-supporting service which rents and (in this case, sells) 16 mm films, in particular. Selected films and audio-tapes produced by other institutions and producers are available for purchase as well as UC productions.

Substantial film rental collections - very much larger than film collections in Australian universities and colleges - are operated by many United States universities, and this was strange to a librarian accustomed to the extensive free loan services of the National Library, Canberra, the nominal fees of the State Film Library of New South Wales, and the free interlibrary loans of 16 mm films which are granted by many university and college libraries in Australia to other similar institutions which they have accredited as borrowers. Even more surprising is the extent to which these rental film collections include school level material irrelevant to the needs of the institution and lend to anyone willing to pay a hiring fee. The system seems somewhat anachronistic, particularly in view of the growth of school district film services in some states, e.g. New York - services providing films free of charge or at a very nominal fee. Another scarcely comprehended cause for concern among some film rental collections is a drop in usage, probably due to the rise of videocassettes - for many of these rental libraries do not appear to have considered entering the videocassette field. Some at least of the film collections are certainly not paying their way, but appear to be maintained as a prestige or public relations service. Generally speaking, film collections in academic libraries are unfortunately as little developed as in most Australian university libraries.

As indicated, community colleges (particularly strong in California, Illinois and Florida) were widely held up to me as providing good examples of integrated audiovisual services under library or "learning resources centre" administration. Even when total integration does not exist, close co-operation is likely to do so (e.g. as at Montgomery College, Maryland, where the Library and Department of Learning Resources, which includes a Learning Laboratory and testing service, work together amicably within the one building.)

Another, and more unusual arrangement, applies at Coastline Community College, California. Strictly speaking this "College" has neither campus nor resources centre. Teaching occurs in a large number of centres scattered over 105 square miles - the cost of building a campus, other than the existing modest administrative offices, would operate the college for 30 years. Library services are provided by agreement with the Huntington Beach Public Library, which acts as the resources centre for this college. Likewise there is a Community Media Production Center, to be jointly operated with Huntington Public Library, and assisted by Federal funding; and a television station owned by the Coast Community College District (which is a small part of Orange County).

Somewhat similar co-operative use of public library facilities occurs in the Study Unlimited Program operated by City-Wide College, Chicago, in conjunction with the Chicago Public Library at 425 North Michigan Avenue. The Chicago visit was of especial interest for the introduction it gave me both to the U.S. college system and to the Public Broadcasting Service, and the relationship of the latter to college courses.

In some instances the Chicago City-Wide College has made use of material broadcast on the Public Broadcasting Service with which it was formerly associated (many Americans grumble that this should be renamed the BBC, U.S. Branch, for it broadcasts a substantial number of BBC series such as "The Long Search", "The Ascent of Man", etc.) City-Wide College, instead of operating its own television station, now buys time on UHF 44, normally broadcasting about six courses per semester. In addition, the College uses a consortium of city colleges (across the country) to achieve professional standard AV productions, "release time" being given to academic staff to go and work on a production in the institution with the production service best equipped for the purpose. This particular college, of course, is very much teaching rather than publication and research oriented. But I feel, as do many colleagues, that there is a great need in both the U.S. and Australian universities for recognition of quality (audiovisual) teaching and study materials. The value of these often exceeds that of the printed flood which gushes from academic pens, and the research which, often with less reason, attracts both funds and release from teaching loads.

More orthodox, integrated AV services are to be observed in the College of Du Page (Glen Ellyn, Illinois) where the Learning Resources Center plays a vigorous and important role in the College, despite the present handicap of distance from the rest of the campus, one result of which has been the proliferation of a number of "learning laboratories" of varying degrees of effectiveness. The Librarian of the College holds the title of Dean of Learning Resources. He is assisted by two Directors, respectively in charge of a Division of Materials Utilisation and Production, and a Division of Technical Processes and Distribution. Apart from a 5kw educational radio station, at present shared with a public school system, the LRC maintains modest television production facilities, plus the normal graphics, photographic and audio production, with strong emphasis on "consultancy" or advisory services in all areas of LRC service.

Prince George's Community College (Maryland) is another good example of an LRC which integrates the full range of media services. Here the LRC is under the control of a Director of Learning Resources who is an Associate Dean. Under her are User Services (formerly Public Services), Technical Services (acquisition, cataloguing, processing, periodicals, film loans etc.) and Media Services (Design and production of instructional materials, equipment delivery, TV and audio, graphics and photographics.)

Even in these community colleges the phenomenon of separation of the "learning laboratory" from the Library/LRC may often be observed. A similar separate learning laboratory functions at Syracuse University, where it is under the control of the Director of the Center for Instructional Development. Separation of most of these "learning laboratories" from Library or LRC puzzles me. In no instance (other than the electronics laboratory, with its impressive collection of oscilloscopes, within the Lanham Technical Learning Center at Prince George's Community College (Maryland)) could I see any good reason for separating the learning laboratory function from the Library. I doubt whether c.a.i. terminals, for example, would be considered at all unusual in any library these days. Most learning laboratory equipment is identical with that used by the public in any normal library AV department. In no instance did I observe the necessity for other than support staff to operate these laboratories and assist users. Concentration of "learning laboratory" facilities in libraries must surely achieve considerable economies in equipment and staffing, and make facilities more readily and conveniently available for a wide span of hours to all students and faculty, in an environment equipped to facilitate further enquiry and learning.

The Bird Library, Syracuse University, has within it a number of useful audiovisual collections and services, including an excellent music library (discs, tapes, etc.), an extensive fine arts slide collection, a substantial, mostly spoken word audio collection (poorly housed in the basement along with a small collection of other AV material) and an AV reserve service operated in conjunction with the General Reserve. There appeared to me to be much to be gained by drawing these AV elements much closer together, and also establishing some relationship between them and the very large audio archives which is also under the administration of the Director of Libraries, but housed at present in very inadequate quarters some distance from the main campus. With the exception of the Film Center the remaining AV services on the Syracuse campus are administered by the Assistant Vice Chancellor for Instructional Development, who is also Director of the Center for Instructional Development. The status of this person is a cause for some envy among many media workers struggling with poor and crowded accommodation, lack of staff, etc., in other parts of the country. As one said, "It's nice to have enough clout not to have to use it."

In brief the Center consists of six operational units:

1. Development (for co-ordinating and developing instructional development projects, calling on other Center staff, etc.

2. Research and Evaluation.

3. Test scoring and evaluation services.

4. Project Advance (a means of offering Syracuse course credits to high school students of outstanding ability).

5. Graphics and Printing.

6. Independent Learning Laboratory.

Under the Assistant Vice Chancellor for Instructional Development also come Audio and Visual Support Services - Audio Services, Photographic Services, Video Services.

Three more examples of organisational structure will be very briefly described:

Purdue University. Here the Director of Libraries has reporting to him:

1. Asst. Director, Administrative Services - fiscal matters, computer, planning, personnel.

2. Asst. Director, Reader Services - reference and circulation services.

3. Asst. Director, Materials and AV - includes acquisition and cataloguing - "The rationale for the inclusion of AV in this section is mysterious".

4. Asst. Director, Archives - maps, theses, archives (a new position).

The AV Center, within the Library, is responsible for a collection of some 3 000 "currently valid" films. The Director of Libraries has allocated $10 000 for publication of a catalogue of these films and the AV Center has a computer terminal which it is using on the task. The AV Center is divided into five units, the heads of the first three being "Assistant Professors", but at a lower salary average than the University generally:

1. Selection, evaluation, information services (this person works half-time with the Office of Instructional Materials Development).

2. Cataloguing, scheduling.

3. Distribution services.

4. Copy services, student assistant co-ordination.

5. Maintenance and repair shop, recording service.

The AV Center until 1977 assisted members of the University in making their own AV material. It has now (unfortunately, in the context of the relative paucity of such services on campus) been decreed that the

AV Center is no longer "in production", the campus production agency being the Audiovisual Production Department, which is still (oddly) tied to the Agricultural Information Services. There is also a Visual Aids unit in Stewart Center where the Library is housed, but it is not under Library control. My general impression of the AV Center is of a Library department doing a very good job under extremely difficult conditions. Fortunately extensions to the Library will eventually provide some improvement in the housing of the AV Center.

At Kent State University, AV Services, the Self Instruction Center (c.a.i. and media-based instruction), and TV Services report to the Director of Libraries, the first and second of these being housed in the Library. Each unit has a separate budget. TV Services both produce and broadcast. I found Kent State's AV an intriguing experience. The Library houses very little of the usual library audiovisual materials and services (audiocassettes, videocassettes, slides, kits, etc.) in its eight acres of floor space. There is a 6 000-disc library of music in the Music and Speech building, which also houses TV production. On the other hand, within the Library, in AV Services, is the eighth largest educational film library in the U.S. (over 9 000 films) - the major aspect of Kent's AV Services - plus graphics and photographics. The AV Services are superbly housed in attractive and spacious quarters.

The organisational structure of the various audiovisual services at Brigham Young University has undergone a number of complex re-shuffles in recent years, including the period immediately prior to my visit. The situation now appears to be:

Learning Services. This is a separate university division concerned with activities involved in directing individual study, tutor and advisory service, learning packages and remedial help (Learning Service Centers); Learning (Resources) Centers; Teacher Evaluation; TICCIT - computer assisted instruction; University Testing Services; Audio-visual Services - loan of films and audiovisual equipment; Instructional graphics - including preparation of teaching materials such as slides, overhead transparencies, etc.

Library. Its responsibilities include media selection and evaluation.

McKay Institute. Develops media packages and instructional programs from the ground up. L(R)C Co-ordinators (now called instructional technicians) are now assigned to this department.

Media Services. KBYU-FM and TV broadcast services, instructional systems, CCTV and portable TV systems, motion picture studio and production, electronic media - repair and installation service for the campus.

The largest of the Learning (Resources) Centers is in the Library where the Director of Learning Centers also has his headquarters.

I have, I think, sufficiently substantiated the statement that "almost every conceivable type of organisational structure capable of providing learning resource development and support services is to be found in U.S. educational institutions". It is quite beyond the scope of this brief report to attempt to lay down formulae for AV in universities and colleges. My personal view, reinforced by this study tour, is that AV services providing efficient access to and facilities for use of the full range of AV resources - films, videocassettes, audiocassettes, slides, educational games, multimedia kits, etc. - should be available in close association with the normal print-oriented library facilities. This is the minimum requirement. Instructional development services, production services of any degree of sophistication, etc., are extras, even though necessary extras for tertiary institutions. Others may take an opposite view.

Three shrewd comments on instructional development units were made to me by various individuals on a number of occasions:

> "These will gain much greater acceptance if *not* operated as a unit of one School or department, such as a College of Education."
>
> "They will achieve greater acceptance if allied to a *service*. This does not have to be AV production. It could equally well be a (student) testing and evaluation service."
>
> "Combining an instructional development unit with any element of evaluation of the performance of teaching faculty will kill it stone dead."

RESOURCES

With the exception of 16mm film collections (often not in libraries) and collections tied to a particular discipline, such as Syracuse's music collection (15 000 discs, 1 000 tapes) and fine arts slide collection (144 000 slides), most AV collections encountered could be described as "modest". Let me be more outspoken. Many are adequate to meet only narrow teacher-prescribed demands of a relatively small number of courses. Certainly many collections are heavily used, but they are quite lacking in range and depth.

Budgets for purchase of software were in some cases markedly better than in Australian libraries of similar institutions. Macquarie University Library's AV software budget in 1979 is $10 000, compared with $50 000 for binding and $30 000 for the purchase of books - chiefly multiple copies - for the Special Reserve (reading list) collection.

At the University of Tennessee (Knoxville, Tennessee), approximately $30 000 per annum is spent on AV software resources for the library. Although this campus has 30 000 students, one can not say that three times the student enrolment would alone necessitate three times the

AV expenditure of Macquarie. Prince George's Community College LRC was, in the year of my visit, spending $44 000 on "media" plus $5 000 on film rental (and $62 000 on books). University of Maryland spent only $10 000 on AV software in 1977, but $25 000 in 1978, and the yearly average is $10-20 000. In 1976 there was an end-of-year special grant of $50 000. Ball State University has set aside $75 000 for the year's software purchases, plus a very substantial budget for film rental.

The new U.S. copyright act (January 1978) was being interpreted quite strictly by most AV people with whom I came into contact. Broadcast material, when recorded, was normally being retained for only one week, except where some special arrangement had been negotiated. In many instances a working tape was as a matter of necessity dubbed from a purchased audio disc and the original disc was kept only as a master (non-working copy). Other libraries were unwilling to do even this and were consequently operating much depleted collections of sound recordings.

The somewhat better budgets, cheaper prices, and greater availability of material locally than is the case in Australia, give American AV librarians certain advantages over their Australian counterparts. It is much easier and cheaper, for example, to preview material when one is close to so many sources of supply. Few overseas producers wish to send their materials "down under" for preview and if they have an Australian agent, chances are that he can not afford to carry comprehensive preview stocks of such things as 16mm films and videocassettes.

Campus-produced material (at least from the institutions' own production agencies) was generally more plentiful in collections than in Australia. Although one informant told me that there are probably only about 40 college-produced courses (each 30 x 30 minute programs) available in the whole of the U.S., there is a substantial amount of less elaborate AV production on university and college campuses, and some of the colleges in particular, are rated among "significant" AV producers (Dallas Community College, Miami Dade, Coast Community College, Maryland Public Broadcasting Service, etc.).

Campus productions and commercially available material, closely integrated into required study, are found in many institutions in a predominantly "closed reserve" AV collection (e.g. University of Maryland). Factors such as dial access and other technician-oriented AV facilities reinforce this tendency. The result is in contast with the open access now traditional in book collections (and, in my opinion, equally logical for AV). Generally, U.S. academic libraries appeared more plagued with theft than is yet the case in Australia, and this also is a factor influencing some librarians to put their AV "behind bars". More significant, though, in my opinion, is a reactionary tendency to regard AV still as basically a "teaching aid" or justifiable only when "prescribed" by teaching staff. As library AV collections increase in quality and size and bibliographic control and analysis inprove, this situation should improve, as it has long since done in regard to print.

Campus-produced material from other institutions had in some universities a low level of acceptance. The media selection specialist at Brigham Young University commented that material produced on many campuses is upper level, with the more popular, lower level material coming from commercial sources. Criticisms made elsewhere of some commercial material were that it was too diffuse, appeared to be aimed at no clearly identifiable audience because it had to sell as widely as possible, and that dealers sometimes attempted to peddle inappropriate school-level material to the tertiary market. Upper level approaches to subjects (the BYU man said) were extremely varied, and there is little general agreement from institution to institution as to what constitutes suitable material. It appeared to me that lack of acceptance of other academics' productions is especially marked in scientific (but non-medical) disciplines.

I feel that a contributory factor to non-acceptance of other academics' productions is lack of familiarity with bibliographies of campus production in the U.S. There exist in the U.S. a number of useful publications such as:

(1978) Catalog of television and audiovisual materials (Agency for Instructional Television).

(1978) Recorded visual instruction (Great Plains National Instructional Television Library).

(1974-76 with 1976-1980 supplement) Catalog (National Center for Audio Tapes).

(1978) Video Library Listings (Intercollegiate Video Clearing House, Inc.).

(1978) Mass Media College Catalog (American Association of Community and Junior Colleges).

(Quarterly) Audiovisuals catalog (National Library of Medicine).

Of especial interest was the computer-produced catalogue of AV programs created by the AV Librarian of the School of Medicine, University of Missouri (Kansas City). This contains evaluated programs which must achieve a minimum rating (for content, technical quality and instructional design) before meriting inclusion. The aim is to have evaluation done by a group, including a specialist, e.g. cardiologist, and students, before acquisition. I could not avoid contrasting the thoroughness of this approach with comments made to me about the Library of Congress' cataloguing of AV, e.g. "may often be as defective as cataloguing a book by the dust jacket, because it's not always based on examination of the actual item"

Australia, of course, has very little comparable to these publications, although the Australian Audio Visual Reference Book, and certain developments such as the TAFE (Technical and Further Education) AV Catalogue - to be released in June 1979 - and the HELPS (Higher Education Learning Program Survey) pilot list of university and college campus productions from the Australian Society of Educational

Technology, are moves in the right direction. Australian AV personnel are generally aware of the excellent HELPIS (Higher Education Learning Programmes Information Service, a catalogue of UK university and polytechnic productions) and HELPS (an AV media catalogue of Ontario universities' productions), but these appeared to be unknown in the United States.

Despite the existence of American publications such as those mentioned above, most AV specialists appear to regard publishers' blurbs and catalogues as their most important selection aids. NICEM (National Information Center for Educational Media) was criticised as being "three years out of date", and reviewing publications, a year. Even though most AV people laid great emphasis on interaction with "faculty", only two, so far as I know, were maintaining even simple card files of the interests of, and services being developed for, individual academic staff.

FACILITIES AND SERVICES

As with staff, a number of American institutions were, by Australian standards, extremely well equipped. It is true that American institutions had their share of AV Library, production and other services housed in unattractive basements which no one else wanted. These services invariably were suffering from some degree of demoralisation and stagnation, or at best had to work extremely hard to overcome the disadvantage of their location. It has always seemed to me that the logical tenant of a library basement is the reserved book collection - which students are virtually compelled to use. No modern store manager would dream of seeking out an obscure location with no passing trade, in order to "sell" a new line.

It is difficult to avoid a tedious list of U.S. installations which would arouse envy in most Australian AV practitioners, but I cannot resist mentioning:

University of Maryland Undergraduate Library - 96 wired carrels with video (10 channels, all colour); 110 audio carrels (26 stereo channels).

Montgomery College - centralised control facilities, enabling 2 staff to serve 9 areas of the Learning Center simultaneously with film, video, etc. This was a relatively small distribution installation as far as television is concerned, but an interesting and efficient example of multi media service to group rooms.

Kent State University - functionally and attractively housed AV Services section in the Library. Layout, lighting and colour were of the standard common in a well-financed medical or commercial centre, rather than a library.

Northern Virginia Community College LRC - carrels for simultaneous use of 128 TICCIT (c.a.i.) units.

Brigham Young University Library - 280 compactly designed carrels, providing 12-channel push-button selection television, c.a.i., etc.

Syracuse University - two large and well equipped television studios (60' x 70' and 44' x 52' approx., with $60 000 Ampex cameras); 13 audio control rooms; $400 000 mobile TV van.

University of Missouri Medical School - 500-monitor, 13-channel television system (a monitor in his study for each student in the School).

Oral Roberts University - very large (70' x 70' x ?) TV studio with 1 000-seat auditorium attached; elaborate audio and video control facilities; special AV-equipped classrooms in the LRC for Medicine, Law, etc.

Clearly many American tertiary institutions have been financed in respect of equipment and facilities in a way which would turn struggling Australian AV librarians green with envy. University of Maryland, for instance, spent $300 000 six years ago on equipment for its (very heavily used) library AV installation, and at the time of my visit had just received another $50 000 for equipment. Ball State University has spent in three successive years approximately $70 000, $50 000 and $70 000 on AV equipment in Bracken Library. The Library of George Washington University (Washington, D.C.) has been funded to the tune of $500 000 by the Sarah Scarfe Foundation to be a regional video centre.

My chief criticism of all this wealth is that some at least of the institutions which are superbly equipped for production are, in fact, producing little educational material for their courses - the facilities are used largely for training educational media students, recruits to the media, or to promote non-curricular interests of the institution. The impressive facilities in some libraries do not fill me with unmitigated envy (except of the money which has made them possible). I feel that "package deals" from electronics firms are rarely the best value for money. It is not necessarily in the interests of the best use of AV media to concentrate on extensive video installations, or indeed to see any one medium as providing the total answer to the problem of providing many different types of information resources for many subjects and purposes. Over recent years the plethora of AV formats appears in many cases to have simplified naturally - in tertiary level, if not curriculum studies collections - to emphasis on the basics of slides, audio cassettes, video cassettes and (diminishing slowly) 16mm film. But this has been a pragmatic evolution, not a paper decision imposed by management.

Although extensive library video installations may be heavily used, the economics of and educational returns from such expensive installations need to be looked at carefully. Humble slide/tape facilities, despite their drawbacks, may be a better if less glamourous solution to many educational needs than videocassettes. Nor does there appear to be much point in providing very expensive individual monitors and carrels to some dozens of students to view the same pre-scheduled program simultaneously, without the opportunity to stop, start, rewind,

replay, etc. at their own pace. The much cheaper solution of group viewing provides the great advantage of interactive discussion with fellow students.

In many institutions, though, despite the development of relatively uncomplicated, user-operable video cassette replay equipment, heavy use is still being made of systems which pipe out television programs from a central control point to teaching and group study areas. Like many American colleagues, I believe there is a place for both "hands-on" video equipment operation by teaching staff and/or students, and for piping out. The latter is especially appropriate and economical where straight-through playing of a program or one segment of it is required. It may be cheaper and more efficient in these cases to pipe out a program rather than move software (and possibly equipment) from place to place. Where it is essential to stop, rewind and replay, or to skip certain passages and intersperse discussion, then user operation is preferable. But while this may be desirable for certain types of material (particularly, as one example, programs demonstrating experiment techniques) it is doubtful whether this type of control is necessary in the majority of showings of, say, documentary programs. Many colleagues felt that teaching staff often claim they require hands-on, stop/start operation of video equipment, but in fact make little use of it - especially if they are familiar (as they should be) with the material they are using, and clear as to how they intend to use it.

Where I differ from some colleagues is in strongly advocating that the place for closed circuit television distribution control installations to serve the whole of the campus is in the library or LRC, the logical place also for both the film and videocassette collections of the institutions. The Nonprint Media Section of University of Maryland Undergraduate Library, for instance, would be an excellent choice for development of a centralised distribution system for that campus. Such a system would, of course, include all basic facilities such as telecine equipment. The fact that these facilities are infrequently housed in either Australian or U.S. academic libraries appears to me illogical and inefficient, and an illustration of the point quoted earlier in this report that "the library profession (had) missed great opportunities with film collections at the turn of the century, and more recently (had) repeated the blunder with television services."

Nowhere in the States did I find any tendency on the part of librarians to discourage the use of library facilities for teaching purposes. I do not mean bibliographic instruction, but normal courses in earth sciences, economics, drama, etc. - where it suited academic staff and students to come to library "classrooms" or AV rooms to use film, videocassettes and other library materials. In fact many, including teaching staff, regarded it as both economical and practical to bring classes to the library, where a wide spread of resources exists.

ATTITUDES

Many of the things I encountered in American AV production, support and resources services and instructional developmental services generally were no surprise to an Australian. One expects to find certain things "bigger, better and brighter" in a country that is wealthy, has a larger population and is technologically more advanced than one's own. I also found, however, as expected, many of the same unresolved problems, and left with many questions unanswered. The teaching and librarianship professions and students in both countries have still a great deal to learn about the development and best use of AV resources. I have already conveyed some views on the library profession's attitude to and performance on AV in the United States. Similar comments were made on tertiary teachers - "Many very bright graduates are rotten, archaic teachers" (Director of a Learning Resources Centre).

Familiarity of present-day tertiary students with the operation of domestic AV gadgets (transistor radios, cassette players, TV sets) which in a large percentage of cases are habitually used as vehicles for programs of inferior intellectual content, is no guarantee that these students will be capable of using, or motivated to use, AV materials as we hope they how use books, i.e. freely, independently, selectively, critically. Certainly, like students of every age, they will use materials heavily (whether AV or books) under compulsion.

Ironically, large and prospering collections of printed materials are making wide use of AV media to sell their wares even harder, while AV librarians are still struggling with problems of resources acquisition, retrieval and delivery - and devoting precious little attention to the ways in which their resources are used. Many library colleagues whom I questioned about user-education programs thought at first that I was asking for information on film or music appreciation courses. In fact I was looking (on the whole, vainly) for information on efforts by librarians to instruct faculty and students in the best use of film and video cassettes; on the basics of obtaining information by viewing or listening; on extracting what is relevant from a program rather than swallowing it whole; on the reasons it makes sense to use certain media to achieve certain aims. There are unique possibilities for imaginative and effective teaching on the premises of AV departments of tertiary libraries.

AV librarians in Australian and American university and college libraries need to co-operate much more closely with instructional development personnel than they have done, on the whole, in the past. But, in addition, initiative and commonsense can be used just as effectively by AV librarians as, say, by Professor Postlethwaite of Purdue. AV still needs to become, after all these years, less teacher-dominated. "Too much programmed instruction destroys student initiative" said the LRC director of an institution with a large c.a.i. installation. Too much packaged-course prescription of any kind has exactly the same effect. AV personnel need to have clearer concepts and policy statements of what they aim to achieve and why.

MICROFORM

In the course of the tour I inspected a number of microform collections and installations, but found nothing unexpected. There is a general lack of agreement among librarians as to the most appropriate location for these services, or indeed as to where they fit into the organisational structure of the library.

At Princeton University (6 000 students), the bulk of the relatively large microform collection is housed in a separate area of the Firestone Library, where 26 reading machines are available and 2 full-time staff receive up to 70 hours of part-time help per week. At Arizona State the microform collection happens to be adjacent "by accident" to the Curriculum Collection (almost entirely print), and staff report to the Curriculum Librarian. There are 34 machines and the service is operated by 2 full time staff with 90 hours of student help per week. In one two-week period in 1977 there were 305 hours of student help.

A much more common pattern, however, was for microform to be associated, for practical housekeeping reasons of equipment maintenance, etc., with the audiovisual services of the library. This is the arrangement at Macquarie, the chief exceptions being the separate housing of bibliographic tools relevant to the work of the Reference Section and Technical Services Division.

As already indicated, I encountered little that was remarkable in microform collections - except for the larger size of collections and the adequate staffing available. A number of institutions, despite improvements in modern reading equipment, appeared to feel it necessary to maintain claustrophobic microform reading areas shrouded in unpleasant half-light.

MAP COLLECTIONS

My tour included detailed visits to six map collections (Arizona State University, Brigham Young University, Library of Congress Geography and Map Division, University of Texas at Austin, Princeton University, University of California at Los Angeles).

Many academic library map collections in the States are, like map collections in most parts of the world, in their infancy. Many (but this does not necessarily refer to those I visited!) are poorly financed and, in some cases, grimly housed. There are, of course, a great many more large collections in the United States than in Australia. Arizona State University, the smallest of the collections visited, was established in 1970 and now contains roughly 80 000 map sheets (four times as many as Macquarie) in a functionally and attractively laid out area. Staff consists of 3 persons with professional qualifications and 60-75 hours per week of student help (this could be increased to 120 hours per week if necessary). Of particular interest at Arizona State was the KWOC (Key Word Out of

Context) indexing system used to provide impressive in-depth analysis of the collection. Generous use is made of "descriptors" to elicit subject content of maps (the immense concentration of information in even one standard topographic map sheet is a fact well-known to map librarians, even if not to colleagues in other branches of the library profession). Consequently a map of Arizona called "Indian Country" could have as many as 55 descriptors. A computer-produced microfiche version of the Map Index is revised and reissued quarterly.

The size of other collections varied:

Brigham Young - 112 000 sheets (with 20 000 shortly to be added); 3 000 volumes of atlases, gazetteers, etc.

Library of Congress Geography and Map Division - 3 700 000 sheets. Staff of 35 ("but it needs 50").

University of Texas at Austin - Geology Dept. - 132 000 sheets; Perry Castaneda Library - recently established collection of 26 000 sheets, with space for at least 75 000.

Princeton - 200 000 sheets in Firestone (main library); 100 000 sheets in Geology department.

UCLA - c. 500 000 sheets and 4 000 books. 5.3 f.t.e. (full-time equivalent) staff.

I saw and heard sufficient of American map collections to realise that size alone is no guarantee of a well-balanced, well-organised, well-staffed or well-used collection. There is a tendency for the valuable Special Map Processing Projects (Summer Projects) of the Library of Congress, at which series are indexed, shelf list reading and preliminary cataloguing done, and the Geography and Map Division's collection is weeded for disposal of unwanted sheets, to encourage indiscriminate greed on the part of participating librarians! There seems little point, for example, in having two map sheets of Gosford, New South Wales, if your collection has none of the 1:250 000 topographic series of Australia. (Of course it can be argued that the 1:250 000 sheets may be acquired at a later date.) Perhaps it is simply that having once been associated with public libraries which had to make collections work to earn their keep, I have always found it hard to accept the blind faith of academic librarians that "big is beautiful". Despite this, I hasten to add that the Summer Projects have been invaluable in providing seminars and practical work with maps, for a large number of librarians. Because of the sheer volume of available maps, and the storage and retrieval problems the format entails, micro-imaging of some kind will increasingly be necessary for map collections.

Two other features particularly struck me on my visits to the map collections listed above. One, support collections of atlases, gazetteers, foreign language dictionaries, encyclopaedias, and other reference aids, manuals on map interpretation, and a range of journals relevant to cartographic matters were comparatively stronger in American map libraries than in their Australian counterparts.

Two, collections generally required much more intensive promotion. Average user figures of 30 per day are hardly sufficient to encourage strong financial support. Map collections everywhere are over-dependent on recreational use to maintain even those figures. A substantial user-education effort is necessary. Map collections may never achieve consistently the intensity of use of reserved book collections, but map librarians can not afford to retreat into building up larger and larger collections with little more than preservation and status roles. Teachers and students of biology, linguistics, history, economics, etc., as well as those traditionally associated with maps - geographers and geologists - constitute a vast, scarcely-tapped market for the use of a resource of which they have little knowledge.

One of the most heartening aspects of my tour was my visit to the map library at UCLA. Although poorly housed in a departmental building close to the main campus library, it was briskly used, with a constant demand for reference advisory help from geographers, private industry, architecture, history and linguistics students.

AUSTRALIAN NEEDS

One of the pleasures of travel is to return home and tell local colleagues their short-comings. However, I believe that I would find general agreement among these colleagues that the profession of AV librarianship in this country needs most:

1. Much better data bases and printed bibliographies of AV local productions and holdings.

2. Staff - a considerable strengthening of staff numbers, including professional staff employed on professional duties in library AV units, and a much more significant AV element in all courses in librarianship offered by library schools.

3. Much more realistic budgets for the purchase of AV software.

4. At least one fully developed AV academic library service to serve as a touchstone to others.

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I am grateful to those who helped me gain maximum benefit from this study tour - in particular, I wish to thank:

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Librarian (Mr E.H. Wilkinson) and Vice-Chancellor (Professor E.C. Webb) for supporting my application for a Fulbright University Administrator Travel Grant; the University for its financial help; and, in particular, the staff of the Audio Visual Section, Macquarie University Library, who, by working even harder than usual, made it possible for me to undertake this study tour.

INSTITUTIONS VISITED

22 August 1978	University of California Berkeley, California
24 August 1978 to 26 August 1978	Arizona State University Tempe, Arizona
28 August 1978	University of Colorado Boulder, Colorado
29 August 1978	U.S. Air Force Academy Colorado Springs, Colorado
31 August 1978	Brigham Young University Provo, Utah
1 September 1978	Utah State University Logan, Utah
5 September 1978	Association of College & Research Libraries Chicago, Illinois
6 September 1978	University of Illinois Chicago, Illinois
7 September 1978	Chicago City Colleges, Center for Open Learning Chicago, Illinois
8 September 1978	College of Du Page Glen Ellyn, Illinois
11 September 1978 to 15 September 1978	Syracuse University & ERIC Clearinghouse on Information Resources Syracuse, New York
14 September 1978	Onondaga Community College Syracuse, New York
18 September 1978	Columbia Teachers' College New York, New York
20 September 1978	ERIC Clearinghouse on Higher Education Washington, D.C.
	American Association of Community and Junior Colleges Washington, D.C.
21 September 1978	Association of Research Libraries Washington, D.C.
	Association for Educational Communications and Technology Washington, D.C.

22 September 1978	Library of Congress Washington, D.C.
	National Archives and Records Service Washington, D.C.
25 September 1978 & 5 October 1978	University of Maryland College Park, Maryland
26 September 1978	Georgetown University Washington, D.C.
27 September 1978	Montgomery College Takoma Park, Maryland
29 September 1978	Maryland Center for Public Broadcasting Owings Mills, Maryland
2 October 1978	Library of Congress Geography and Map Division Alexandria, Virginia
3 October 1978	Northern Virginia Community College Alexandria, Virginia
4 October 1978	George Washington University Washington, D.C.
6 October 1978	Prince George's Community College Largo, Maryland
13 October 1978	University of Tennessee Knoxville, Tennessee
17 October 1978	University of Missouri Kansas City, Missouri
18 October 1978	University of Kansas, College of Health Sciences Kansas City, Kansas
20 October 1978	Oral Roberts University Tulsa, Oklahoma
22 October 1978 to 24 October 1978	Conference of Texas Association of Educational Technologists San Antonio, Texas
25 October 1978	University of Texas Austin, Texas
30 October 1978 to 31 October 1978	Purdue University Lafayette, Indiana
	Ball State University Muncie, Indiana

2 November 1978	Kent State University Akron, Ohio
6 November 1978	Princeton University Princeton, New Jersey
8 November 1978 to 11 November 1978	Association of College & Research Libraries Conference. Boston, Massachusetts
14 November 1978	Coastline Community College Fountain Valley, California
16 November 1978	University of California at Los Angeles Los Angeles, California